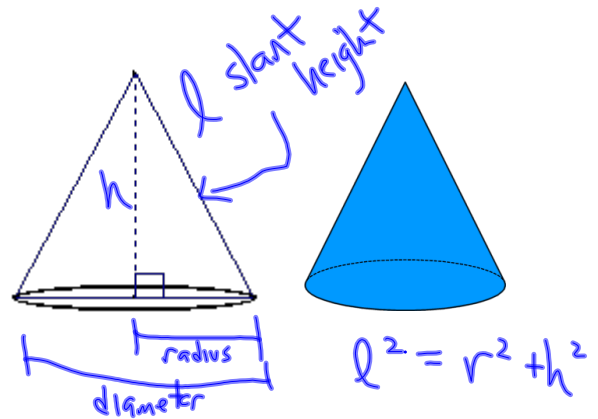


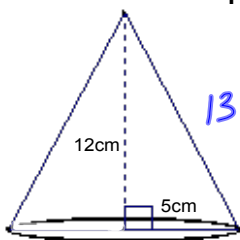
9.3 and 9.5

# Area and Volume of Cones



Formulas:

$$\begin{aligned} LA &= \frac{1}{2} p l \\ SA &= LA + B \\ V &= \frac{1}{3} B h \end{aligned}$$



$$l = 13$$

$$\begin{aligned} l^2 &= 5^2 + 12^2 \\ l^2 &= 25 + 144 \\ l^2 &= 169 \end{aligned}$$

$$B = \pi r^2$$

$$\begin{aligned} P(\text{circumference}) &= \pi d \\ &= 2\pi r \end{aligned}$$

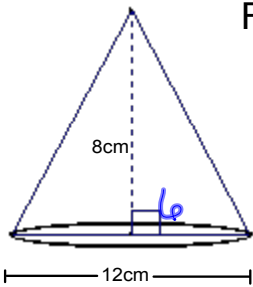
$$P = 10\pi$$

$$B = \pi 5^2 = 25\pi$$

$$LA = \frac{1}{2} 10\pi \cdot 13 = 65\pi$$

$$\begin{aligned} SA &= 65\pi + 25\pi \\ &= 90\pi \end{aligned}$$

$$V = \frac{1}{3} 25\pi \cdot 12 = 100\pi$$

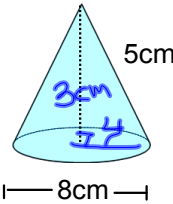


Formulas:

$$\begin{aligned} LA &= \frac{1}{2} p l \\ SA &= LA + B \\ V &= \frac{1}{3} Bh \end{aligned}$$

$$\begin{aligned} r &= 6 \text{ cm} \\ l &= 10 \text{ cm} \quad l^2 = 6^2 + 8^2 \\ p &= 2\pi r = 12\pi \\ B &= \pi(6)^2 = 36\pi \\ LA &= \frac{1}{2} 12\pi \cdot 10 = 60\pi \\ SA &= 60\pi + 36\pi = 96\pi \\ V &= \frac{1}{3} 36\pi \cdot 8 = 96\pi \end{aligned}$$

$p = 37.7 \text{ cm}$   
 $B = 113.1 \text{ cm}^2$   
 $LA = 188.5 \text{ cm}^2$   
 $SA = 301.6 \text{ cm}^2$   
 $V = 301.6 \text{ cm}^3$



Formulas:

$$\begin{aligned} LA &= \frac{1}{2} p l \\ SA &= LA + B \\ V &= \frac{1}{3} Bh \end{aligned}$$

$$\begin{aligned} r &= 4 \text{ cm} \\ l^2 &= 5^2 = 25 \\ 5^2 &= 4^2 + h^2 \\ 25 &= 16 + h^2 \\ 9 &= h^2 \\ 3 &= h \end{aligned}$$

$P = 2\pi r = 8\pi$   
 $B = \pi r^2 = 16\pi$

$$LA = \frac{1}{2} 8\pi \cdot 5$$

$20\pi$      $62.8$   
 $\text{cm}^2$

$$SA = 20\pi + 16\pi$$

$36\pi$      $113.1$      $\text{cm}^2$

$$V = \frac{1}{3} 16\pi \cdot 3$$

$16\pi$      $50.3$      $\text{cm}^3$

Assignment:

p495-496

13, 23-25, 28 p, B, LA, and SA

p514

17-19